

WHAT IS CLAIMED IS:

1. An electronic shop sales system comprising:
  - an electronic shop connected to a network communication line;
  - 5 a user terminal connected to said network communication line; and
  - an article storage device connected to said network communication line, wherein:
    - said electronic shop comprises:
      - 10 an article database configured to manage article information and storage conditions;
      - a sales system configured to present articles managed by said article database to said user terminal through said network communication line for accepting
      - 15 an order of an article sold by said electronic shop from a user; and
      - a distribution system configured to perform a transaction required to deliver an article accepted through said sales system based on destination
      - 20 information, and
      - said article storage device comprises:
        - an article container having a door which is locked and unlocked; and
        - environment control section configured to control
        - 25 a storage environment in said article container, and wherein:
        - said electronic shop sales system is configured to

be responsive to an order of an article received from said user terminal, for reading a storage condition for said article from said article database, operating said environment control section of said article storage device based on the storage condition to adjust the storage environment in said article container, storing the ordered article in said article container, and subsequently delivering the article to the user.

2. The electronic shop sales system according to claim 1, wherein:

said distribution system is configured to attach a label on the ordered article, said label having at least the storage condition read from said article database printed thereon, and

said article storage device further comprises:  
an input unit configured to input the label data;  
and

means for reading the storage condition from the label data input through said input unit to operate said environment control section to adjust the storage environment in said article container.

3. The electronic shop sales system according to claim 1, wherein:

said sales system is configured to transmit a storage condition read from said article database to said article storage device through said network communication line, and

said article storage device operates said environment control section based on the received storage condition for the article to adjust the storage environment for said article container.

5           4. The electronic shop sales system according to claim 1, wherein:

          at least one of said electronic shop and said article storage device is configured to notify said user terminal of delivery through said network  
10       communication line.

          5. The electronic shop sales system according to claim 1, wherein:

          said sales system is configured to transmit delivery information to said article storage device  
15       through said network communication line for informing a delivery schedule together with a storage condition for an article before the article is stored in said article container of said article storage device, and

          said article storage device is configured to  
20       previously operate said environment control section based on the received delivery information and storage condition for the article to properly adjust the storage environment in said article container upon storing the article.

25           6. The electronic shop sales system according to claim 1, wherein:

          said distribution system is configured to be

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responsive to an order of an article from said user terminal for reading article information and storage condition for the article from said article database, converting the read article information and storage  
5 condition for the article into a machine code, printing the machine code on a label, and attaching the label on the article, and

said article storage device further comprises:

10 a reader configured to read the machine code from said label;

a receiver configured to receive the article information and storage condition from said sales system through said network communication line;

15 means operable when said reader reads the machine code from said label for collating article information and storage condition extracted from the read machine code with the article information and storage condition received from said sales system through said network communication line and automatically unlocking said  
20 door when a match is determined; and

means for operating said environment control section of said article storage device based on the storage condition printed on said label read by said reader to adjust the storage environment in said  
25 article container.

7. The electronic shop sales system according to claim 6, wherein:

said article storage device further comprises means for automatically locking said door upon confirmation of storage of the article in said article container after said door of said article container was  
5 unlocked.

8. The electronic shop sales system according to claim 1, wherein:

said article storage device further comprises:  
a storage unit configured to create and store  
10 information on articles stored in and removed from said article container, storage/removal schedules, storage conditions as operation records; and  
means for notifying the operation records stored in said storage unit to a terminal specified by the  
15 user through an electronic mail.

9. The electronic shop sales system according to claim 1, wherein:

said article storage device further comprises:  
a storage unit configured to create and store  
20 information on articles stored in and removed from said article container, storage/removal schedules, storage conditions as operation records;  
means responsive to storage of an article in said article container for notifying a created operation  
25 record including information on the article, storage a schedule, storage condition to a terminal specified by the user through an electronic mail, and for

periodically repeating the notification if no reception confirmation response is returned from said terminal; and

5 means for notifying, when the article has been left stored in said article container even though an article storage time limit approaches, another contact address previously specified by the user that the article has been left stored.

10 10. The electronic shop sales system according to claim 1, wherein:

said distribution system is configured to attach a label on an ordered article, said label having at least article information and storage condition read from said article database printed thereon, and

15 said article storage device further comprises: an image sensor; and

an adjuster unit configured to switch an image reading angle of said image sensor, and wherein:

20 said article storage device is configured to read the article information and storage condition printed on said label by said image sensor and operate said environment control section in accordance with the read storage condition to adjust the storage environment in said article container, and said article storage device 25 is further configured to switch the image reading angle of said image sensor to read a situation image including a person in charge of delivery of the article

11. The electronic shop sales system according to claim 1, wherein:

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5      a storage unit configured to store IDs and
      passwords previously assigned to users;
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10 means for notifying a terminal possessed by the  
user of the stored unique code information through an  
electronic mail;

15 means for unlocking said door of said article  
container by reading the ID, password and code  
information from the outside through said input unit.

an electronic ship connected to a network  
20 communication line;

an article storage device connected to said  
network communication line, wherein:

an article database configured to manage article information including names, article codes and prices

of a variety of articles, storage conditions therefor;

a customer database configured to manage names of customers, detailed trade information;

5 a sales system configured to present articles managed by said article database to said user terminal through said network communication line for accepting an order of an article sold by said electronic shop from a user; and

10 a distribution system configured to perform a transaction required to deliver an article accepted through said sales system based on destination information, and wherein:

15 said distribution system is configured to be responsive to an order of an article from said user terminal for reading article information on the article from said article database and reading the detailed trade information associated with the customer, printing the read article information and trade information on a label, and attaching said label on the article, and

20 said article storage device comprises:  
an article storage device;  
environment control section configured to control a storage environment in said article container,  
25 an image sensor configured to read the label attached on the article;

means operable when said image sensor reads the

label attached on the article upon retrieval of the article from said article container for inquiring said electronic shop based on the read detailed trade information to acquire information on parties associated with a trade, said parties including a sender of the article, and a person in charge of delivery; and

means for notifying an article reception confirmation to terminals of the parties associated with the trade acquired by said means through an electronic mail, and wherein:

said electronic shop sales system is configured to be responsive to an order of an article received from said user terminal, for reading a storage condition for the article from said article database, operating said environment control section of said article storage device based on the storage condition to adjust the storage environment in said article container, storing the ordered article in said article container, and subsequently delivering the article to the user.

13. The electronic shop sales system according to claim 1, wherein:

said article container of said article storage device includes a plurality of article containers having different storage volumes, and

said article storage device further comprises:  
an image sensor;

an adjuster unit configured to switch an image reading angle of said image sensor;

means for switching the image reading angle of said image sensor by said adjuster unit to estimate the size of an overall article;

means for selecting an article container capable of storing the article based on the estimation; and

means for guiding a person in charge of delivery of the article to the selected article container.

14. The electronic shop sales system according to claim 1, wherein:

said article storage device includes a plurality of article containers, said environment control section being configured to control a storage environment in each of said article containers, and

said article storage device further comprises:

means for comparing an adjusted storage environment with a storage environment required for a new article when the new article is to be stored in a predetermined article container which has previously stored an article in the adjusted storage environment;

means for selecting another article container for storing the new article when the comparison indicates that the storage environment required for the new article is different from the adjusted storage environment; and

means for guiding a person in charge of delivery

of the article to the selected article container.

15. The electronic shop sales system according to claim 1, wherein:

said article storage device further comprises:

5 an image sensor configured to image an article stored in said article container;

means for detecting the quantity, hue or color density of stored articles, coordinates of centers of gravity of the articles, from image information  
10 captured by said image sensor to store the same as security information;

recording means;

notifying means; and

means for periodically imaging articles by said  
15 image sensors to detect the presence or absence of a fault by comparing stored information, recording a fault by said recording means if the fault is determined, and notifying a recorded result by said notifying means through an electronic mail.

20 16. The electronic shop sales system according to claim 1, wherein:

said article storage device further comprises:

a container weight sensor configured to detect the weight of an article stored in said article container;

25 means for storing weight information detected by said container weight sensor as security information;

recording means;

notifying means; and

means for periodically detecting the weight by  
said container weight sensor to detect the presence or  
absence of a fault by comparing the stored weight  
information, recording a fault by said recording means  
if the fault is determined, and notifying a recorded  
result by said notifying means through an electronic  
mail.

17. An electronic shop sales method, wherein an  
article storage device and an electronic shop are  
interconnected through a network communication line,  
for selling an article to a user terminal connected to  
said network communication line from said electronic  
shop, wherein:

said electronic shop comprises an article database  
configured to manage article information including  
names, article codes and prices of a variety of  
articles, storage conditions therefor for presenting  
articles managed by said article database to said user  
terminal through said network communication line,  
accepting an order of an article sold thereby from a  
user, and performing a transaction required for  
delivery based on destination information when an  
article is accepted,

said article storage device comprises an article  
container, and environment control section configured  
to control a storage environment in said article

container,

said method comprising:

receiving an order of an article from said user  
terminal;

5 reading a storage condition for said article from  
said article database;

operating said environment control section of said  
article storage device based on the storage condition  
to adjust the storage environment in said article  
10 container;

storing the ordered article in said article  
container; and

delivering the article to the user by way of said  
article storage device.